



IDAHO DEPARTMENT OF
HEALTH & WELFARE

Bureau of Community and Environmental Health

Summary of Health Consultation for Oldtown, Idaho

Community Concerns

In Fall 2000, teachers and administrative staff at the Idaho Hill Elementary School, as well as community members of Oldtown, Idaho raised concerns about their potential exposure to pentachlorophenol (PCP), a wood preservative, from the Poles Inc. wood treating facility. Poles Inc., uses PCP as a wood preservative in a heated dip tank process. During past pole dipping operations, people in Oldtown experienced eye and throat irritation, headaches, and nausea.

PCP is a man-made substance which can irritate the skin, eyes, and mouth and is a registered pesticide. Exposure to small amounts of PCP for long periods of time may cause damage to the liver, kidneys, blood, and nervous system. PCP is an EPA class B2 carcinogen (probable human carcinogen). There is weak evidence that PCP may cause cancer in humans.

In addition to the potential exposure to PCP, citizens of Oldtown may also be exposed to polycyclic aromatic hydrocarbons (PAHs) as a result of the pole treatment process. Several PAHs are considered probable human carcinogens. At this point it is unknown which PAHs citizens of Oldtown may have been exposed. In September 2001, the Bureau of Community and Environmental Health (BCEH) published a Health Consultation which addressed the above concerns.

September 2001 BCEH Health Consultation: "Evaluation of Potential Pentachlorophenol Air Contamination Based on the Idaho Department of Environmental Quality April 2001 Air Modeling Results"

In April 2001, the Idaho Department of Environmental Quality (IDEQ) released the results of air modeling for the Poles Inc. site. Since there is no site-specific air sampling data available for the site, IDEQ used PCP concentrations from air samples collected at the McFarland Cascade PCP thermal wood treating facility. The IDEQ model did not consider exposure possibilities other than air, such as soil and groundwater contamination. Additionally, the model did not adequately consider many other variables that may contribute to human exposure to PCP from the Poles Inc. facility.

Based on IDEQ's air modeling results, estimated PCP concentrations in the vicinity of Poles Inc. may exceed Idaho's ambient air standard for PCP. The Idaho air standard was set without considering PCP's potential carcinogenic effects. The estimated PCP concentrations significantly exceed the EPA risk concentration for PCP. The EPA assumes PCP is a carcinogen. BCEH determined that the estimated PCP concentrations around the nearby school and residences may be a concern.

The potential routes for exposure to PCP include air, water, and soil. PCP can be released into the atmosphere during wood treating processes or from evaporation of treated wood products as they are drying. PCP can enter surface water, soil, or groundwater from improper disposal, accidental spills, or from the atmosphere during precipitation events. Elementary school children may be at greater risk for exposure to PCP due to their proximity to Poles Inc., while attending Idaho Hill Elementary. Additionally, children's play behavior may put them at greater risk of exposure to potentially contaminated soils.

BCEH determined that PCP concentrations around Idaho Hill Elementary School and residences near Poles Inc. may be a health concern. Due to the uncertainties in the IDEQ air model, BCEH recommended that a thorough site exposure investigation be conducted at the Poles Inc., site. The site investigation should focus on all potential exposure pathways (soil, water, and air) as well as other potential contaminants associated with the wood treating process such as PAHs.

September 2001 BCEH Health Consultation: “Evaluation of Environmental Protection Agency’s Integrated Assessment Sampling and Quality Assurance Plan”

In Summer 2001, the EPA Superfund Technical Assessment and Response Team (START) completed a draft Integrated Assessment (IA) Sampling and Quality Assurance Plan (SQAP) for the Poles Inc. Oldtown site. BCEH prepared a Health Consultation to summarize its comments and recommendations about the sampling plan.

During the IA, surface soils, subsurface soils, groundwater, and air samples were collected from areas considered to be potentially contaminated. Air samples were collected over three consecutive days from August 22 through August 24, 2001. During the sampling, Poles Inc., was to conduct the butt dipping wood treatment processes in order to simulate the worst-case exposure scenario. The air samplers were to be placed at locations designed to measure upwind and downwind concentrations of PCP and other semi-volatile organic compounds. During the entire sampling event, a meteorological station measured local weather conditions.

BCEH recommended the following for the IA:

- Place an indoor air sampling station in Idaho Hill Elementary (in the classroom closest to the facility).
- Collect three wipe samples for dust in the same classroom where the air samples are collected.
- Collect two additional surface soil samples from the school play area.
- Establish seven outdoor air sampling locations: one upwind, one downwind, one or two by the dip tank, one across the river, one by the school, and the rest outside the property boundary.
- Collect three additional surface soil samples from the treated pole staging area.
- Assess odor intensity for compliance with IDEQ’s odor policy using two trained odor investigation personnel from IDEQ.
- IDEQ, in cooperation with START, should design and provide an odor-reporting tracking sheet for the nearby residences to log their odor complaints.
- START should provide a detailed list of analytes for the target analyte list, volatile organic compounds, semi-volatile organic compounds in the final SQAP document.

Prior to commencing the sampling activities, START reviewed and incorporated the above recommendations into the IA SQAP.

Post – Health Consultation Update

BCEH, IDEQ, ATSDR, and EPA have conducted or are currently planning the following public health actions:

- BCEH formed the Oldtown Community Advisory Group (CAG), sponsored multiple public meetings, and provided a public availability session.
- BCEH will investigate the former practice of waste dip tank sludge disposal and in order to address the potential past exposures to PCP.
- IDEQ conducted preliminary soil sampling at the facility and on the school playground to determine the possibility of soil contamination. BCEH is reviewing the results and will address this issue in a separate Health Consultation.
- EPA conducted an IA of the site and has involved IDEQ, BCEH, ATSDR, and the site owner. BCEH will review the results of the sampling and conduct an exposure/health assessment as needed.
- After evaluating all of the exposures at the site, BCEH and ATSDR will determine the need for a health study.
- IDEQ agreed to conduct an odor investigation of the Poles Inc. facility in order to assess compliance with IDEQ’s odor policy.

Bureau of Community and Environmental Health (BCEH)

Environmental Health Education and Assessment
450 W. State St. 6th Floor, Boise, Idaho 83720-0036
Toll Free: 1-866-240-3553
(208) 334-0606
BCEH@idhw.state.id.us